

## **Firm Performance Determinants of FII in Indian Financial Service Sector**

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### **ABSTRACT**

*Foreign investments results in capital inflow, improves labor productivity in a country as well as build up foreign exchange reserves to meet the current account deficit. FII considers firm performance as one of the crucial parameters while taking investment decision in foreign countries as it ensures more transparency in firm's operations and safety of their funds. Considering the role of financial performance in investment decision of FII, the present paper by applying the yearly and pooled regressions shows the impact of firm performance on FII in the Indian financial service sector over a period of five financial years. Results showed that firm size, ROE and exports, have been found to have a positive impact on FII. Leverage and Book to market ratio, as expected have shown a negative impact on FII.*

**Keywords:** Foreign Institutional Investment, Firm Performance, Financial Service Sector, ROE, Leverage, Book-to-Market Ratio.

### **INTRODUCTION:**

Foreign capital covers the difference between companies' investment requirements and the domestically available capital in industries of emerging economies (Lakshmi, 2011). It has been found to play an increasingly important role in the rapid industrial and economic development around the world (Banerjee, 2013). Ferreira and Matos (2008) founded that foreign institutional investors (FIIs) have a strong bias for big-sized firms, firms that are members of world index, cross-listed on a US stock exchange and with low insider ownership. Hence, identifying the determinants of foreign investments at a firm level is important.

### **Indian Financial Service Sector:**

India has a diversified financial service sector which is expanding both in terms of strong growth of existing financial services firms as well as entry of new firms in this sector. This sector comprises commercial banks, insurance companies, non-banking financial companies, co-operatives, pension funds, mutual funds and other smaller financial entities. However, banking sector is the most prominent one with commercial banks accounting for more than 64 per cent of the total assets held by the financial system.

The Government of India has introduced several reforms to regulate and further promote this industry. The Government and Reserve Bank of India (RBI) have taken various measures to facilitate easy access to finance for Micro, Small and Medium Enterprises (MSMEs). These measures include launching Credit Guarantee Fund Scheme for Micro and Small Enterprises, issuing guideline to banks regarding collateral requirements and setting up a Micro Units Development and Refinance Agency (MUDRA). With the combined efforts by both Govt. and private sector, India has been growing as one of the world's most vibrant capital

markets. Further, SEBI has relaxed norms for registered foreign portfolio investors (FPIs) in India, allowing them to operate through the International Financial Services Centre (IFSC) without undergoing any additional documentation or prior approval process. The asset management industry in India is among the fastest growing in the world. At the end of April 2017, the assets under management of the mutual fund industry stood at US\$ 299.04 billion. Inflows in India's mutual fund schemes through the systematic investment plan (SIP) route rose 44 per cent year-on-year to reach a record high of Rs 4,584 crores (US\$ 711.17 million) in May 2017.

#### **Investment Pattern of FII in Indian Financial Service Sector:**

There have been big changes in preferences of FIIs in the Indian financial service sector since last few years. The financial services sector has emerged as the most favored since May, 2017 by attracting ₹ 11,024 crore till October 15th, 2017 as against an outflow of ₹ 5,666 crore. Telecom services has got ₹ 7,375 crore since May, 2016, nearly 15 times more than the ₹ 487 crore received in the same period last year. It is followed by Pharma & Biotech, which has attracted ₹ 5,248 crore. It was a favourite last year also and attracted ₹ 4,125 crore, the third among all sectors. Software and services, the most preferred last year with net investment of ₹ 3,535 crore, is at the fourth rank; it has got ₹ 7,366 crore from FIIs. Auto & auto component and oil & gas sectors are among the top six this year with FII investments of ₹ 3,304 crore and ₹ 2,409 crore, respectively (source- [www.businesstoday.in](http://www.businesstoday.in).)

According to data from NSDL, FIIs hold assets worth ₹ 4,29,859 crore in banking and other financial services. NSDL is an equity market depository. The BSE Bankex rose 55% to 20,117 this year till November 12, when HDFC Bank, Kotak Mahindra Bank, Federal Bank, ICICI Bank, IndusInd Bank and Axis Bank touched all-time highs. Between December 2013 and September 2014, FIIs increased their stake in Oriental Bank of Commerce (from 9.57% to 12.65%), ICICI Bank (38.39% to 41.08%), DCB Bank (11.94% to 14.84%) and Bank of Baroda (15.54% to 18%) (source- [www.businesstoday.in](http://www.businesstoday.in)).

#### **LITERATURE REVIEW:**

Global investors consider specific advantages while selecting their foreign assets (Solnik, 1974). Falkenstein (1996) demonstrated that U.S. mutual funds hold more shares in big-sized firms than in small firms. Dahlquist and Robertsson (2001) found that foreign investors in Japan favour firms with certain characteristics, such as big size and low leverage. Liljeblom *et al.* (2001) in their study had taken daily opening and closing prices from 1994 to 1996, showed the positive relation between falls in the ex-dividend day price and the degree of foreign ownership, indicating that foreign investor's disfavour stocks with high dividends. These empirical results suggested that foreign investors hold fewer shares with high dividend yields to mitigate the negative impact of disharmonious taxation. According to Lakonishok *et al.* (1994) and Dahlquist and Robertsson (2001), institutional investors prefer growth firms, i.e., firms with low BM. ROE proxies for the profitability of a firm. Aggarwal *et al.* (2005) found that institutional holdings are positively related to the ROE of the firms in which institutions invest. Jensen and Meckling (1976) argued that debt reduces a firm's agency costs through increased monitoring by the bondholders. If institutional ownership acts as a monitoring mechanism as well, one would expect to see a negative relationship between leverage and institutional ownership due to the substitution effect. Bathala *et al.* (1994) examined the role of institutional ownership on managerial ownership and debt policy. They indeed found a negative relation between debt levels and institutional ownership.

On the basis of results provided by various studies, following hypotheses have been formulated regarding FII and firm performance determinants:

H<sub>1a</sub>: There is a significant positive impact of Firm Size on FII

H<sub>1b</sub>: There is a significant negative impact of Book-to-market ratio on FII

H<sub>1c</sub>: There is a significant positive impact of ROE on FII

H<sub>1d</sub>: There is a significant negative impact of Leverage on FII

H<sub>1e</sub>: There is a significant positive impact of Export Rate on FII

#### **OBJECTIVE OF THE STUDY:**

Present paper aims to examine the impact of firm performance measures on FII in Indian financial service sector companies that are listed on BSE during the financial years, 2011-12 to 2015-2016.

#### **METHODOLOGY:**

This section presents the methodology being applied that includes, period of study, population and sample selection criteria, data sources, variable description, and analysis techniques.

#### **Period of the Study:**

Data has been analyzed for the financial years 2011-12 to 2015-2016.

**Population and Sample Selection:**

Initial sample included all financial service sector BSE listed companies as on March 31<sup>st</sup> 2016. From this sample, companies with missing data for the required period of study or that had insufficient data on the required variables, were excluded from the sample. Consequently, the final sample resulted into 31 financial service sector companies for the present study.

**Data Sources:**

Data required for the present study have been obtained from the Prowess database maintained by CMIE and website of BSE (www.bseindia.com).

**Variable Description:**

Table 1 gives the description of various firm performance measures used in the present paper for assessing their impact on FII.

**Table 1: Description of Variables**

Variable	Abbreviation	Description
<b>A. Dependant Variable</b>		
Foreign Institutional Investment	<b>FII</b>	Percentage of total number of shares subscribed by institutional investors
<b>B. Independent Variables- Firm Performance Variables</b>		
Firm Size	<b>SIZE</b>	Log of total assets
Book to market ratio	<b>BM</b>	Ratio of net worth to market capitalization
Return on Equity	<b>ROE</b>	Ratio of profit after tax to net worth
Leverage	<b>LEV</b>	Ratio of total assets to net worth
Export rate	<b>EXP</b>	Exports to sales

**Analysis Techniques:**

Correlation analysis has been applied to identify the association between firm performance variables and FII in Indian financial service sector companies. Further, multiple regression analysis on yearly and pooled data have been made to assess the impact of firm performance variables on FII.

**DATA ANALYSIS AND INTERPRETATION**

This section presents the results of correlation analysis and multiple regression analysis, both yearly and pooled. Table 2 shows the results of correlation matrix applied on all variables of interest used in the present paper.

**Table 2: Correlation Matrix**

Variables	FII	SIZE	BM	ROE	LEV	EXP
FII	<b>1.00</b>	0.401**	-0.542**	0.290**	-0.093	0.182*
SIZE	0.405**	<b>1.00</b>	-0.166*	0.288**	0.705**	-0.055
BM	-0.399**	-0.548**	<b>1.00</b>	-0.484**	0.107	-0.422**
ROE	0.259**	0.329**	-0.522**	<b>1.00</b>	0.348**	0.313**
LEV	-0.14	0.732**	-0.251**	0.336**	<b>1.00</b>	-0.188*
EXP	0.595**	0.128	-0.189*	0.258**	-0.059	<b>1.00</b>

\*\*significant at 0.01 level \*significant at 0.05 level

The analysis of the above table shows that FII has a significant positive correlation with SIZE, ROE at 1 percent level of significance and with EXP at 5 percent level of significance, which indicates that FII, favour firms with large size, higher ROE and more Export to sales ratio. Further, results have shown FII to be negatively associated with BM at 1 percent level of significance and with LEV though negative but insignificant, indicating that FIIs prefers firms with low BM ratio which is similar to findings of Dahlquist and Robertsson (2001), Aggarwal et al. (2005).

Generalize least square regression has been applied to analyse the impact of firm performance variables on FII. Following regression equation have been formulated for the same:

$$FII_{it} = a_0 + a_1 SIZE_{it} + a_2 BM_{it} + a_3 ROE_{it} + a_4 LEV_{it} + a_5 EXP_{it} + e_{it}$$

Table 3 presents the results of multiple yearly and pooled regression analysis for assessing the impact of firm performance variables on FII.

**Table 3: Multiple Regression Analysis on Yearly and Pooled Data (Annexure)**

Financial Years	$a_1$	$a_2$	$a_3$	$a_4$	$a_5$	Adj. $R^2$ (%)
<b>Pooled</b>	<b>0.853</b>	<b>-0.076</b>	<b>0.003</b>	<b>-0.586</b>	<b>0.483</b>	<b>60.2</b>
<i>t</i> -statistics	5.479 <sup>***</sup>	-0.702 <sup>***</sup>	0.035	-4.381 <sup>***</sup>	5.805 <sup>***</sup>	
<b>2011-2012</b>	0.811	-0.057	0.022	-0.567	0.467	<b>56</b>
<i>t</i> -statistics	3.566 <sup>***</sup>	-0.359	0.174	-2.86 <sup>***</sup>	3.574 <sup>***</sup>	
<b>2012-2013</b>	0.844	-0.074	0.003	-0.556	0.519	<b>59.4</b>
<i>t</i> -statistics	3.395 <sup>***</sup>	-0.397	0.020	-2.669 <sup>*</sup>	4.012 <sup>***</sup>	
<b>2013-2014</b>	0.695	-0.25	0.018	-0.499	0.497	<b>50</b>
<i>t</i> -statistics	2.72 <sup>*</sup>	-0.129	0.105	-2.242 <sup>*</sup>	3.471 <sup>***</sup>	
<b>2014-2015</b>	0.607	-0.090	0.162	-0.544	0.388	<b>45.7</b>
<i>t</i> -statistics	2.361 <sup>*</sup>	-0.398	0.712	-2.156 <sup>*</sup>	2.684 <sup>*</sup>	
<b>2015-2016</b>	0.629	0.074	0.282	-0.528	0.444	<b>59</b>
<i>t</i> -statistics	2.906 <sup>**</sup>	0.421	1.782 <sup>*</sup>	-2.779 <sup>*</sup>	3.517 <sup>***</sup>	

<sup>\*\*\*</sup> Significant at 0.01 level <sup>\*\*</sup> significant at 0.05 level <sup>\*</sup> significant at 0.10 level

Results of Table 3 reveals that SIZE has a significantly positive impact on FII in all the financial years under analysis, leading to acceptance of  $H_{1a}$  that firm size has a positive impact on FII. Similarly, BM ratio has a negative impact although insignificant which leads to acceptance of  $H_{1b}$  that BM has a negative impact on FII. Likewise ROE has a positive impact on FII which lead to acceptance of  $H_{1c}$ . LEV has shown a significantly negative impact and EXP has a positive significant impact on FII leading to the acceptance of both  $H_{1d}$  and  $H_{1e}$ , respectively. The Adjusted  $R^2$  of the yearly regressions ranged from a minimum of 45.7 percent in 2011-12 to 59 percent in 2015-16. These findings prove that firm performance variables have made variations in foreign investments during the period of study as evident by different Adjusted  $R^2$  values. Pooled multiple regression results shows that SIZE (0.853), EXP (0.483) have shown a significantly positive impact on FII at 1 percent level of significance & ROE (0.003) positive but insignificant. BM (-0.076), LEV (-0.586) have shown a significantly negative impact on FII at 1 percent level of significance. Pooled results lead to acceptance of respective hypotheses. Further, all firm performance variables together explain about 60.2 percent of the variation in foreign investments. These findings are found to be consistent with past studies like Bathala et al. (1994), Lakonishok et al. (1994), Falkenstein (1996), Dahlquist and Robertsson (2001), Gompers and Metrick (2001), Liljeblom et al. (2001), Benett et al. (2003), Almazan et al. (2005).

**SCOPE FOR FUTURE RESEARCH:**

Foreign capital plays an important role in the economic development of country but as they are short term investors always searching for prospective opportunities to ensure security and safety of their returns considered analysing companies on different parameters. In this study specifically financial sector has been considered for analysing the determinants pouring foreign investors to invest focussing on firm performance parameters covering five years. Further study can be extended to different sectors covering longer time period which may influence the result by exploring other parameters.

**CONCLUSION:**

Present paper aimed to assess the impact of firm performance variables on FII. Results showed that firm size, ROE and export to sales have been found to have a positive impact on FII while Leverage and Book to market ratio, have shown a negative impact on FII. These outcomes thus prove that superior firm performance is associated with better corporate governance mechanisms thereby leading to increase in firm value which is admired by foreign investors one of the This consequently raises foreign investor’s interest and preference for such firms.

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